IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: John D. Hottovy	§	
	§	Group Art Unit: 1723
Serial No.: 10/699,151	§	
	§	Examiner: Cheung, William K.
Filed: October 31, 2003	§	
For: METHOD AND APPARATUS FOR REDUCING REACTOR FINES	§	Atty. Docket: CPCM:0020/FLE/RAR 210330US00

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September 18, 2007 — Floron C. Faries
Date — Floron C. Faries

PRE-APPEAL BRIEF REQUEST FOR REVIEW

In light of the following remarks, Appellant respectfully requests review of the Final Rejection in the above-identified application. This Request is being filed with a Notice of Appeal. No amendments are being filed with this Request.

In the Final Office Action, the Examiner rejected claims 1-6, and withdrew claims 7-11 and 18-22 from consideration. While Appellant does not necessarily agree with the Examiner's reasons for restriction, Appellant hereby acknowledges the constructive election of claims 1-6 and withdrawal of claim 7-11 and 18-22 from consideration pursuant to 37 C.F.R. § 1.142(b) and M.P.E.P § 821.03. In view of the following remarks, Appellant respectfully requests reconsideration and allowance of all pending claims.

Legal Error of Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-6 under 35 U.S.C. § 103(a) as obvious over Rohlfing et al. (U.S. Patent No. 3,244,681). Appellant respectfully traverses this rejection.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish a *prima facie* case, the Examiner must show that the combination or modified reference includes all of the claimed elements, *and* also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the reference(s). *See Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). Further, the Supreme Court has recently stated that the obviousness analysis should be explicit. *See KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350, page 14 (U.S., decided April 30, 2007). "[R]ejections based on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *See id.* (quoting *In re Kahn,* 441 F.3d 977,988 (Fed. Cir. 2006)).

Independent Claim 1

The Examiner acknowledged that the cited reference does not disclose "a root mean square surface roughness less than about 120 micro inches," as recited in claim 1. *See, e.g.*, Office Action Mailed July 10, 2006, page 4. Nevertheless, the Examiner incorrectly asserted that because Rohlfing discloses a tubular closed loop reaction zone having "smooth surfaces," it would have been obvious to one of ordinary skill in the art to polish the inner surface of the Rohlfing loop reactor to a root mean square surface roughness less than about 120 micro inches. *See id.* at 5. However, such a nonspecific statement in Rohlfing does not teach or suggest the finish of a surface having a roughness less than about 120 micro inches, as claimed.

Moreover, the Examiner contended that "although [Rohlfing] may not use the same units for measuring smoothness or roughness, applicants must recognize that the recited 'root mean square surface roughness' is merely a functional language for gauging roughness or smoothness that does not lend itself to patentability." *See* Office Action Mailed July 10, 2006, page 4. First, Appellant notes that the cited reference employs no units for smoothness or roughness, but merely states that the surface of the Rohlfing reactor is smooth. *See* Rohlfing, col. 1, lines 60-65. As mentioned, such a nonspecific statement in Rohlfing does not teach or suggest the finish of a surface having a roughness less than about 120 micro inches, as claimed.

Further, as indicated in the present specification, Appellant believes that the walls of loop reactors (such as the Rohlfing reactor) in the prior art possess a roughness *greater* than 125 micro inches. *See* Application, page 7, ¶ 28 ("Known slurry loop reactors have root mean square surface roughness values of 125 or greater (in units of micro inches). The root mean square surface roughness of the slurry loop reactor of the present invention is less than 125 micro inches . . ."). In fact, Appellant believes that the roughness of the Rohlfing is well above 125 micro inches (far outside of the claimed range) when considering the age of the reference.

Second, Appellant again traverses the Examiner's contention that the presently-recited unit of roughness is merely functional language not lending itself to patentability. After all, a degree of smoothness (which may be expressed in units of roughness as is typical in the pertinent art) of a surface of the polymerization reactor is plainly patentable. The present application discloses and claims specific processes for conducting polymerizations in reactors having a maximum surface roughness, and also generating and maintaining such a maximum surface roughness. *See, e.g.*, Application, pages 4-5, ¶¶ 19-21.

In conclusion, while the Rohlfing reference mentions "a tubular closed loop reaction zone having smooth surfaces," the cited reference is absolutely devoid of the teaching or suggestion of a loop reactor surface having a *root mean square surface roughness less than about 120 micro inches*. *See* Rohlfing, col. 1, lines 60-65. Furthermore, there is no appropriate reason for such a modification of the Rohlfing reference. For example, there is no indication of operating problems (e.g., excessive fouling, excessive pressure differential, polymer quality problems, etc.) or other needs for a much smoother reactor surfaces. Accordingly, claim 1 and its dependent claims 2-6 are patentable over the cited reference. Therefore, Appellant respectfully requests that the Examiner to withdraw the rejection and allow claims 1-6.

Conclusion

Appellants respectfully submit that all pending claims should be in condition for allowance. However, as indicated, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: September 18, 2007

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